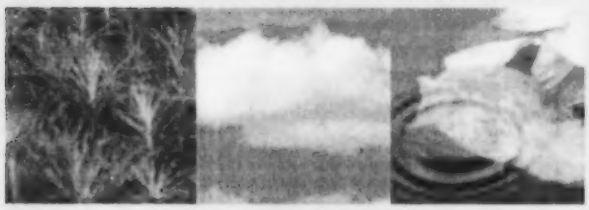
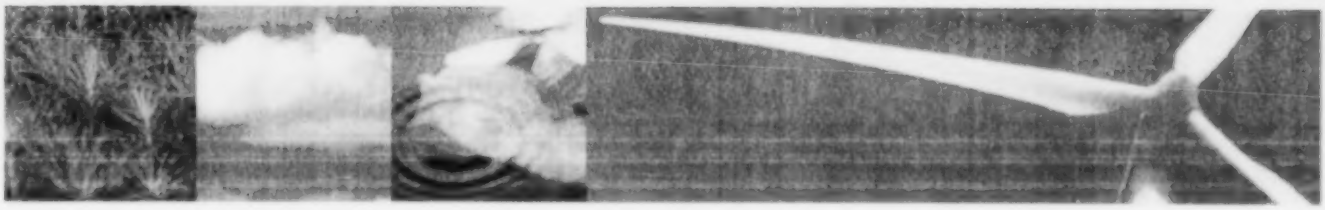
2002 Environment Review

About this Report

Our Environment Review gives us the opportunity to tell the story of SaskPower's ongoing environmental activities. It also allows us to join our partners and the public in reflecting upon our performance while we build upon our vision for a sustainable future. We invite you to learn more about us by visiting us on-line at saskpower.com.





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STRIVING FOR SUSTAINABILITY

In 1987, the United Nations World Commission on Environment and Development released a document entitled, "Our Common Future." Also known as the Brundtland Report, it brought the term "sustainable development" into public focus, emphasizing the need to protect the environment while advancing the world economy and social structure: "Development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

For SaskPower, this means continually pressing forward with our commitment to environmental responsibility as we deliver safe, reliable, cost-effective electricity. As a member of the Canadian Electricity Association, we are an active participant in the Environmental Commitment and Responsibility Program. It is an innovative initiative that standardizes environmental performance reporting and provides industry-wide data that can support our efforts to assess our Corporation's activities. For the first time, those indicators are contained within the pages of this annual review.

Our ISO 14001-registered Environmental Management System is providing us with the means necessary for effective stewardship and leadership. It gives us a comprehensive framework for effective decision-making at all levels, including the necessary prevention, monitoring, assessment, correction and review processes.

Presently, we are concentrating on four strategic areas to achieve our goal of continual environmental improvement: increasing effectiveness through internal initiatives and cogeneration projects; increasing customer awareness; investing in renewable energy sources; and pursuing offset opportunities which compensate for emissions. While challenges remain, the past year has seen a number of notable gains that will inspire ongoing efforts.

With climate change one of the primary issues facing the electrical utility industry, it is important that progressive sources of electricity gain a further foothold in the province. In 2002, the introduction of GreenPower — an Eco-Logo certified product — gave customers an opportunity to support electricity generated from two new wind power installations in southwestern Saskatchewan. We also developed and further investigated a range of environmentally preferable supply sources: cogeneration, biomass, microturbines, flare gas and solar power.

Existing facilities are the focal point of continuing efforts designed to improve performance and reduce emissions. Meanwhile, our work to create more than 500,000 hectares of forest carbon reserves to offset carbon dioxide emissions continues, as well as funding for the development of clean coal technologies.

Community involvement remains the heart of cooperative efforts that are making a difference. Programs such as EnergyCheck and the Energy Performance Contracting service are helping customers at all levels to be more energy efficient. Partnerships with organizations like Ducks Unlimited remain a high priority as we strive to protect habitat and wildlife. Public consultation is resulting in key stakeholders being involved in decision-making. And the support of education programs — such as the Climate Change Saskatchewan project — is seeing young people play a part in staking out our environmental future.

We remain dedicated to enhancing the way we serve our customers while reducing environmental impact and having a positive effect on our society. Our employees have played a central role in helping us develop and carry out effective environmental strategies; in the future, they will provide the impetus necessary to achieve sustainability as we build our business.

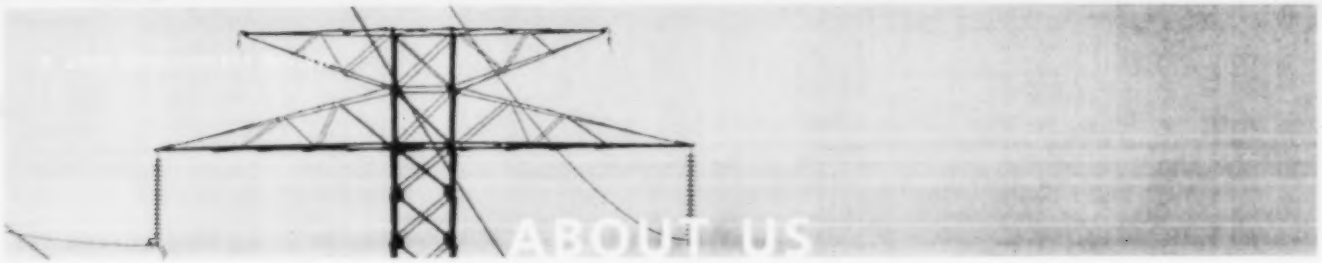
John Wright

John Wright
President and Chief Executive Officer

SASKPOWER'S ENVIRONMENTAL POLICY AND COMMITMENT TO ENVIRONMENTAL RESPONSIBILITY

SaskPower is committed to protecting the environment while providing our customers with safe, reliable and cost-effective sources of electricity. To us, being environmentally responsible means using natural resources while respecting the need to preserve their potential for use by others, now and in the future. It means building and operating our facilities in a manner that will, to the greatest extent possible, conserve natural resources, maintain natural systems and preserve natural diversity. And it means anticipating and, wherever possible, preventing environmental impacts. The following principles, adopted by SaskPower's Board of Directors and communicated to all employees, confirm our commitment to improved environmental performance and pollution prevention.

- Commit to comply with environmental legislation and regulations as determined by applicable regulators, and with other corporate commitments.
- Identify, monitor and manage all significant environmental aspects associated with our operations and services.
- Ensure all employees and contractors recognize their environmental roles and responsibilities.
- Identify opportunities for continual improvement in cooperation with employees, contractors, suppliers, regulatory authorities, environmental agencies and our customers. Where opportunities arise, implement cost-effective, energy-efficient technologies and improved management practices throughout our operations and services.
- Integrate environmental considerations into capital planning and purchasing decisions.
- Implement the fundamentals of waste management: rethink, reduce, reuse, recycle and recover.
- Provide the public with an annual review of our environmental performance and environmental management programs.
- Audit our environmental performance regularly, including auditing for compliance with the ISO 14001 Standard for Environmental Management.



SaskPower is the principal supplier of electricity in Saskatchewan. Founded as the Saskatchewan Power Commission in 1929, our mandate is to deliver safe, reliable, cost-effective power to the residents of Saskatchewan. SaskPower was created as a provincial Crown corporation in 1950 and is governed by the province's Power Corporation Act.

SaskPower operates three coal-fired power stations, seven hydroelectric stations, four natural gas stations and nine wind turbines (Cypress) with aggregate generating capacity of 3,051 megawatts (MW), and has 221 MW of contracted capacity (Meridian and SunBridge). SaskPower maintains more than 152,000 kilometres of power lines.

SaskPower's 2,350 permanent full-time employees work in three business units (Power Production; Transmission and Distribution; and Customer Services), five corporate groups (Corporate and Financial Services; Corporate Information and Technology; Human Resources; Planning, Environment and Regulatory Affairs; and the President's Office), and three subsidiaries (NorthPoint Energy Solutions Inc.; Power Greenhouses Inc.; and SaskPower International Inc.).

Transmission and Distribution Lines (pole km)

	1997	1998	1999	2000	2001	2002
Transmission (72kV - 230kV)	12,178	12,215	12,335	12,338	12,290	12,026
Distribution (14.4kV - 25kV)	137,243	137,786	138,321	138,859	139,460	140,840

• Historically, line kilometres were estimated; the recent use of satellite mapping systems has resulted in more accurate data.

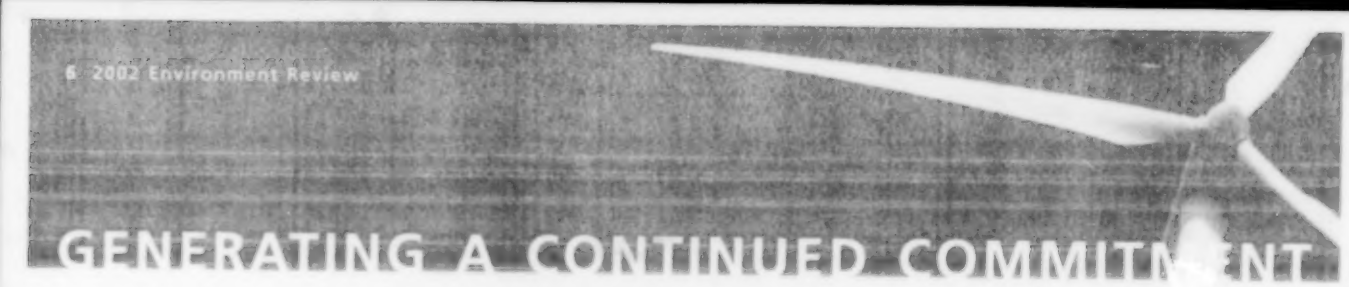
2002 HIGHLIGHTS

- Independent audits verify that SaskPower's Environmental Management System continues to meet the ISO 14001 standard. In 2000, our company was the first full-service Canadian electric utility to achieve corporate-wide registration.
- SaskPower introduces GreenPower, a product that allows customers to purchase blocks of electricity produced from renewable resources. GreenPower is Eco-Logo certified and among the lowest priced products of its kind in Canada.
- Two new developments in southwestern Saskatchewan provide 100 per cent of the electricity produced for GreenPower: SaskPower's 9-turbine, 5.9 MW Cypress Wind Power Facility and the 17-turbine, 11.2 MW SunBridge Wind Power Project.
- As a founding member, SaskPower continues its involvement in the Canadian Clean Power Coalition, which is undertaking a feasibility study for the development of the country's first clean coal power plant.
- SaskPower partners with SaskEnergy and Flatland Exploration Ltd. to create a pilot project utilizing flare gas from oil wells to generate electricity.
- SaskPower's Shand Greenhouse distributes nearly 500,000 tree seedlings, primarily to community and non-profit groups.
- A $140-million repowering of SaskPower's Queen Elizabeth Power Station is completed. Generating efficiency is improved using combined-cycle technology, with waste heat from the six 25-MW Hitachi gas turbines helping to drive the power station's existing steam turbines.
- Our Energy Performance Contracting service helps customers achieve better energy efficiency through the retrofitting of heating, cooling, lighting, ventilation and building automation systems.
- SaskPower continues to join partners in protecting wildlife and habitat and promoting environmental awareness through the support of Ducks Unlimited, Saskatchewan River Sturgeon Management Board, Lake Diefenbaker Conservation Plan, Prairie Conservation Action Plan and Climate Change Saskatchewan.
- For the first time, SaskPower publishes a 10-year Transmission Development Plan. It outlines anticipated transmission and load growth developments for the period 2002 to 2011. In addition, we are also developing an enhanced public participation process that involves a community-based approach to social and economic evaluation of transmission line corridors.

Net Generation (GW.h)

	1997	1998	1999	2000	2001	2002
Fossil	12,397	12,866	12,562	12,360	12,509	12,659
Hydro	3,986	3,650	3,668	3,046	2,391	2,836
Wind						4
Total	16,383	16,516	16,231	15,406	14,899	15,499

- Fossil-based generation includes coal- and natural gas-fired generation. Electricity generated by the new Meridian Cogeneration facility is not included as net generation, as this is purchased under contract.
- SaskPower's Cypress Wind Power Facility produced 4.1 GW.h of alternative energy in 2002. SaskPower purchased 39.2 GW.h from the SunBridge Wind Power Project. This purchase is not included as part of SaskPower's net generation.



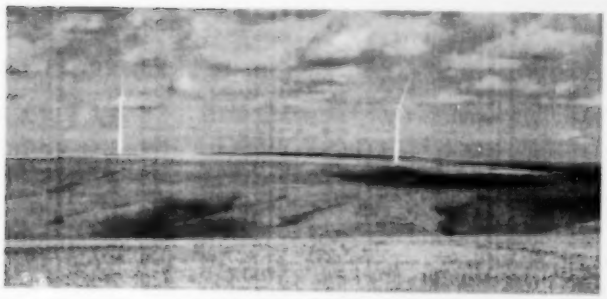
GENERATING A CONTINUED COMMITMENT

Our world has changed a great deal since 1881, when a 1.86 kilowatt (kW) steam-driven generator provided the electricity to light a Canadian skating rink for the first time. Rapid industrialization and population growth has seen significant pressures placed upon the globe's natural resources and environment.

Electricity has had an immeasurable impact upon our quality of life. But the way we produce, supply and use power must be addressed in partnership by utilities, industry, governments, institutions and consumers to ensure an environmental future built around innovation, conservation and efficiency.

At SaskPower, we remain committed to continual environmental improvement while delivering safe, reliable, cost-effective electricity to our customers. The avenue to effective development includes regular review and sustainability reporting. As part of these activities, utilities are increasingly looking to the triple bottom line — the environmental, economic and social impacts associated with the business of producing and delivering electricity.

In 2002, we continued to strengthen our commitment to enhancing the triple bottom line through the implementation of a number of initiatives, which are outlined in the pages that follow. They include completion of the SunBridge Wind Power Project and SaskPower's Cypress Wind Power Facility in southwestern Saskatchewan, which now allow us to provide customers with alternative sources of electricity through our GreenPower program. Renewable energy promises to have an important place in our long-term plan to meet the province's growing energy needs while we continue to search for ways to reduce our impact on the environment.



Economically, we are endeavouring to operate more efficiently while providing services of direct value to our customers. Through initiatives such as Energy Performance Contracting and EnergyCheck, we continue to help Saskatchewan people decrease energy use in their homes and businesses. By helping customers save money on power and natural gas bills, we are also reducing the use of valuable natural resources.

Socially, we are carefully considering — and responding to in a respectful way — the communities with which we interact. We are achieving results by building strong relationships with people, organizations and businesses across the province. SaskPower established a panel of independent experts to recommend guidelines and practices for the routing of power transmission lines; we are now seeing the implementation of some suggested courses of action. This includes an enhanced public participation process, with a community-based approach to social and economic impacts.

A Comprehensive Way of Reporting

For the first time in the history of our Environment Review, SaskPower is reporting the performance indicators of the Environmental Commitment and Responsibility (ECR) Program, with a particular focus on efficiencies and the

reduction of environmental impacts. Launched in 1997, the ECR Program is a pioneering industry-wide approach to environmental performance reporting by the corporate utility members of the Canadian Electricity Association (CEA). It is designed to provide utilities with a means to manage and report environmental performance, reduce environmental impacts and respond to changing regulatory and public expectations.

The essence of the ECR Program is an open commitment to adopting the core program principles:

- To be more efficient in our use of resources
- To reduce the adverse environmental impacts of our business
- To be accountable to our constituents
- To ensure that our employees understand the environmental implications of their actions and have the knowledge and skills to make the right decisions

Through the ECR Program, the environmental performance of member utilities and the industry as a whole is monitored, assessed and reported to the Canadian public, as well as to federal and provincial authorities. See page 23 for a summary of ECR program indicators.

Our Environmental Management System

Each member utility of the CEA is required to have an Environmental Management System (EMS) in place, consistent with ISO 14000, a series of voluntary standards in the environmental field developed by the International Organization for Standardization (ISO). In 2000, SaskPower was the first full-service (generation, transmission and distribution) electric utility in Canada to achieve corporate-wide ISO 14001 registration. Specifically, our ISO 14001 compliant EMS focuses on three key commitments:

- Complying with environmental legislation, regulations and other corporate requirements
- Preventing pollution
- Continually improving our environmental performance and management system

Our registration provides a solid framework for excellence in environmental management. In 2002, an external audit by the Quality Certification Bureau of Edmonton, Alberta, verified that our EMS continues to meet the rigorous criteria of the program. In compliance with the ISO 14001 standard, we operate a comprehensive environmental awareness training program to help ensure that all employees and contractors understand their roles and responsibilities with respect to the importance of our EMS in guiding day-to-day activities.

IMPROVEMENT THROUGH INNOVATION

GreenPower Comes to Saskatchewan

In 2002, SaskPower launched GreenPower. It is a product that provides customers with the opportunity to purchase blocks of electricity produced from renewable resources with little or no environmental impact. One 100 kilowatt-hour block of GreenPower is enough electricity to wash and dry 20 loads of laundry in a home for a month, and provides the same offset of greenhouse gas emissions as planting about 240 fully grown trees.

Currently our GreenPower sources include two wind power installations located near Gull Lake, Saskatchewan. Wind turbines do not generate air or water emissions or hazardous waste, deplete natural resources or cause environmental damage through resource extraction and transportation.

SaskPower's own Cypress Wind Power Facility uses 9 turbines to generate 5.9 MW at peak capacity. Meanwhile, the SunBridge Wind Power Project delivers approximately 11 MW of electricity from 17 turbines. Together, the two projects produce enough electricity to make Saskatchewan the third-largest generator of wind power in Canada at the end of 2002.

GreenPower, among the lowest-priced products of its kind in Canada, is an important step in our sustainability efforts. It provides an opportunity for individuals, businesses and industry to work together to support the development of Eco-Logo certified renewable energy right here in Saskatchewan. The Government of Saskatchewan, Government of Canada and SaskPower have committed to purchase GreenPower over a 10-year period. SaskPower and the City of Saskatoon have also reached an agreement allowing the city's electrical customers to purchase GreenPower through their local utility.

The University of Regina became our first commercial GreenPower customer in March 2002, utilizing the electricity for its new Greenhouse Gas Technology Centre. Meanwhile, SaskEnergy and TransGas are buying wind-generated electricity for use at nine customer service centers, three offices and a natural gas compressor station; their use of GreenPower means a reduction in greenhouse gases equal to the planting of 142,000 trees, or taking almost 100 cars off the road. Other commercial and industrial business customers are currently discussing GreenPower purchase contracts with SaskPower.

Distributed Generation

Distributed generation is the use of small generators — typically several hundred kilowatts in size — to supply electrical power at a consumer's site rather than using power from large centralized power stations. Any excess electrical power from the facility can also be fed into the provincial electrical grid.

The benefits of distributed generation include countering existing distribution constraints, deferring distribution upgrades, reducing the need for additional transmission capacity, improving the reliability of the existing system and reducing greenhouse gas emissions. Distributed generation can also make use of waste streams — such as flare gas and biomass — to generate electricity.

In 2002, we joined forces with SaskEnergy and Flatland Exploration Ltd. on a pilot project near Carlyle to generate electricity utilizing flare gas from oil wells. Flare gas is a by-product from the process of extracting and processing oil. Instead of being flared on-site — with potential energy being wasted — the flare gas is captured, processed and used to run two microturbines. When connected to SaskPower's electrical grid, these turbines will generate approximately 60 kilowatts of electricity, enough to meet the annual needs of 20 households. The initiative is providing all partners

Internal Energy Efficiency – %

	1997	1998	1999	2000	2001	2002
Generation	94.0	93.9	93.9	93.6	93.3	93.6
Transmission	95.2	94.9	95.1	95.0	95.4	95.3
Distribution	94.8	94.4	94.6	94.4	95.0	94.9

• Measurement of the amount of electricity that is used for station service and supporting infrastructure, as well as line losses from transmission and distribution systems.

Energy Conversion Efficiency for Fossil-based Generation – %

1997	1998	1999	2000	2001	2002
30.3	30.2	30.1	31.3	31.5	30.4

• Measurement of how much of the energy released in burning fossil fuels (like natural gas and coal) is turned into electricity. In 2002, the average annual efficiency for coal-fired (lignite) generating units ranged from approximately 27 per cent to 31 per cent. Gas turbine efficiencies averaged 29 per cent, while efficiencies for combined cycle units averaged 41 per cent in 2002.

with an excellent opportunity to learn more about the feasibility of distributed generation.

Also in 2002, the Regina Health District, SaskEnergy and SaskPower began working together on another innovative pilot project at the Regina General Hospital. This cogeneration development will use natural gas to produce electricity while using the exhaust to preheat a portion of the hospital's domestic hot water supply for cooking and cleaning. Total project costs of approximately $500,000 are being shared equally by SaskEnergy and SaskPower, with the Regina General Hospital providing the test site.

During 2002, SaskPower also continued operations of its solar power distributed generation project at the Saskatchewan Science Centre.

Internal Energy Efficiencies

The economical use of energy and resources in the operation of our facilities is an important factor in reducing our overall impact on the environment. In 2002, our efficiency in generating electricity was improved with the $140-million repowering of the Queen Elizabeth Power Station (QEPS) in Saskatoon. Using combined-cycle technology, waste exhaust heat from the six 25-MW Hitachi gas turbines help drive the power station's existing steam turbines.

The new turbines enable us to increase generation while using about one-third less fuel than either the original steam plant or a gas turbine operating alone. This drop in fuel consumption means lower fuel costs and could reduce greenhouse gas emissions by as much as 200,000 tonnes annually — an amount equal to taking 30,000 cars off Saskatchewan roads.

THE ENVIRONMENT WE SHARE

A Changing Atmosphere

The earth's climate is always changing as a result of a variety of naturally occurring phenomena. However, in recent years human activities are believed to be contributing to significant increases in the concentrations of some gases in the atmosphere — most notably greenhouse gases. Scientists believe that the increase in atmospheric greenhouse gas concentrations is enhancing the otherwise naturally occurring greenhouse effect.

The natural greenhouse effect is produced when greenhouse gases allow incoming solar radiation to pass through the earth's atmosphere, but prevent most of the outgoing infrared radiation from the surface and lower atmosphere from escaping into outer space. This process acts as a natural insulation around the earth — without it, the earth's temperature would be a chilly -18 C, or about 33 C colder than the current average temperature of 15 C. Current life on earth could not be sustained without this natural greenhouse effect.

With increased fossil fuel combustion and deforestation over the last two centuries, more greenhouse gases are being released than are being absorbed, resulting in what some scientists believe is an enhancement of the greenhouse effect.

Currently there is a great deal of study focused on the issues surrounding greenhouse gases and climate change, including potential long-term changes in temperature, precipitation and all other aspects of the earth's climate.

Water vapour (H_2O), carbon dioxide (CO_2), nitrous oxide (N_2O), methane (CH_4) and ozone (O_3) are the primary greenhouse gases from both natural and human sources. There are also a number of other greenhouse gases, such as halocarbons, sulphur hexafluoride (SF_6), hydrofluorocarbons (HFC) and perfluorocarbons (PFC), which originate solely from human sources.

United Nations Framework Convention on Climate Change (UNFCC)

This Convention was adopted on May 9, 1992, in New York and signed at the 1992 Earth Summit in Rio de Janeiro by more than 150 countries and the European Community. Its objective is the stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous interference with the climate system. The Convention entered into force in March 1994.

Canada and more than 160 other countries agreed to targets in December 1997 to reduce greenhouse gas emissions under the Kyoto Protocol. Canada's target is to reduce its greenhouse gas emissions to six per cent below 1990 levels for the period 2008 to 2012.

Assuming that SaskPower must reduce greenhouse gas emissions in compliance with Canada's national greenhouse gas target, our goal is to achieve 20 per cent of the required reductions in greenhouse gas emissions by the end of 2003. Specifically, SaskPower is striving for a reduction in carbon dioxide emissions of approximately 1.3 million tonnes per year.

Greenhouse Gas Emission (thousands of tonnes of carbon dioxide equivalent)

	1997	1998	1999	2000	2001	2002
Gross emission [1]	13,890	14,270	14,090	13,890	14,160	**14,220**
Internal efficiency projects [2]	360	400	440	480	490	**530**
Actual emission [3]	13,530	13,870	13,650	13,410	13,670	**13,690**
External offsets [4]	80	80	70	70	90	**100**
Net emission [5]	13,450	13,790	13,580	13,340	13,580	**13,590**

1) Total amount of carbon dioxide equivalent SaskPower would have produced if no internal efficiency improvements were undertaken.
2) Reduced emission as a result of efficiency improvements.
3) Actual or measured amount of emission from SaskPower operations, less reductions from efficiencies.
4) External projects that remove or sequester greenhouse gas emissions outside SaskPower operations.
5) Actual emission, less offsets.

Carbon Dioxide Offsets

Offsets are a means for greenhouse gas emitters to compensate with emission reductions at locations other than the emitters' facilities. This method of greenhouse gas emission management is recognized by the Kyoto Protocol as both environmentally and economically effective. Since climate change is a global issue, emission reductions made anywhere in the world will have the same net benefit on the environment. In terms of economics, emitters are provided with the flexibility to seek out the most cost-effective emission reductions in the world.

In the short term, SaskPower expects to rely on the use of offsets in order to partially meet future greenhouse gas emission reduction requirements. Until commercially viable technology is developed, offsets will contribute to the need to preserve the integrity of the environment, while allowing SaskPower to continue providing customers with cost-effective electricity. Offsets can take the form of emission reductions, carbon sequestration activities and emission avoidance.

Emission Reduction

Emission reduction projects include scenarios where a manufacturer using fossil fuels in a production process pays a municipality to capture and combust methane produced by the municipality's landfills that otherwise would be vented to the atmosphere. Since methane is a more potent greenhouse gas than carbon dioxide, this type of project would result in an overall reduction in greenhouse gases released to the atmosphere.

SaskPower is currently partnering in a landfill gas recovery project in Surrey, British Columbia. Greenhouse gas emission reductions are realized by collecting methane gas from the Port Mann landfill site and delivering it to a wallboard plant where it is combusted as part of the wallboard curing process. Additionally, SaskPower will partner with the City of Saskatoon to determine the economic viability of collecting methane from the city's landfill to generate electricity.

Greenhouse Gas Emission Reduction Summary

In 2002, SaskPower reduced its emission of greenhouse gases through external offsets of approximately 100,000 tonnes of carbon dioxide equivalent (CO_2e). Net emission of greenhouse gas emissions totaled 13,590,000 tonnes of CO_2e. For more information, see the 2002 SaskPower Climate Change Action Plan on-line at saskpower.com.

Carbon Sequestration

Carbon sequestration is a process whereby carbon is taken out of the atmosphere and stored in either trees or organic matter in the soil. In 2002, the Greenhouse Gas Emission Reduction Trading (GERT) Pilot endorsed a plan initiated by Saskatchewan Environment and SaskPower in 1999 to invest $6 million over five years in a two-phase project that will establish more than 500,000 hectares of forest carbon reserves. This half million-hectare program is comprised of the planting of approximately five million seedlings in northern forests, plus harvest protection for some existing forest lands. By the end of 2002, Saskatchewan Environment had already planted three million seedlings.

This initiative was the first Canadian forest sequestration project to be subjected to a rigorous technical review by GERT. The project will generate 22 million tonnes of carbon dioxide offsets when it is complete. Both parties have signed a contract transferring the carbon dioxide credits from Saskatchewan Environment to SaskPower. The Corporation will use these offsets to help meet future emission reduction obligations.

SaskPower is also a member of the Greenhouse Emissions Management Consortium (GEMCo), a not-for-profit Canadian corporation formed by companies that wish to demonstrate industry leadership in developing voluntary and market-based approaches to greenhouse gas emissions management. These companies have included in their corporate environmental management strategy consideration of investment in greenhouse gas emission offsets. SaskPower is currently receiving a share of greenhouse gas offsets realized through GEMCo projects.

Emission Avoidance

In the area of emission avoidance, SaskPower is a founding member of the Canadian Clean Power Coalition (CCPC), an association of coal and coal-fired electricity producers. The CCPC's seven participating companies represent over 90 per cent of Canada's coal-fired electricity capacity and, in addition to SaskPower, include Luscar, ATCO Power, EPCOR, TransAlta, Nova Scotia Power and Ontario Power Generation. The Electric Power Institute (United States) and International Energy Agency (United Kingdom) are also participants.

Both SaskPower and the Government of Saskatchewan have provided financial support to the CCPC. The funding – part of a total national investment of $5 million – will be used for the first phase of the planned development and construction of Canada's first clean coal power plant. The long-term goal of this private and public sector initiative will be to develop technology that will virtually eliminate air emissions of concern, including carbon dioxide, from coal-burning power plants.

The first phase of the project will be completed in 2004, involving detailed research and conceptual engineering studies leading to the selection of the technology to be used in the plant. By 2007, the CCPC plans to complete the retrofit of an existing coal-fueled power plant, and operate it as a full-scale demonstration facility to test the technical, environmental and economic viability of new clean coal technology. The efforts of the CCPC are expected to result in a new plant being designed, built and in operation by 2010, not only to supply electricity, but also to serve as the prototype for future plant construction.

SaskPower is also continuing to support the University of Regina's International Test Centre for Carbon Dioxide Capture, including a demonstration project at the Boundary Dam Power Station. The technologies that are being developed may one day enable SaskPower to remove carbon dioxide from the flue gases of our coal-fired power plants and have it pipelined to oil-fields to assist in enhanced oil recovery. Studies have shown that carbon dioxide capture and storage is likely to be one of the least expensive methods of achieving large-scale reductions of greenhouse gas emissions, in addition to creating an economic opportunity.

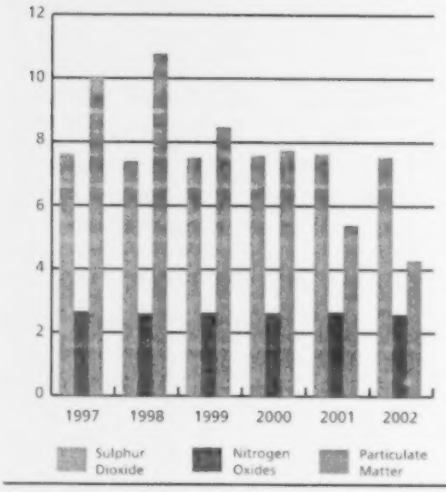
Air Quality

Air quality is an issue of significant focus. The emission of substances such as sulphur dioxide (SO_2), nitrogen oxides (NO_x) and particulate matter contribute to smog, acid rain and other environmental concerns. The generation of electricity with fossil fuels can be a significant contributor to the release of these substances. We are working closely with federal and provincial regulators to ensure that strict guidelines and standards for impact on air quality are met.

In 1998, SaskPower entered into a Memorandum of Understanding with Saskatchewan Environment to pursue long-term environmental protection initiatives. As part of this partnership, SaskPower undertook a five-year, $62 million initiative to install electrostatic precipitators (ESPs) on five of the six units at our largest coal-fired facility, Boundary Dam Power Station. These ESPs are designed to achieve a 99 per cent reduction in particulate emissions, bringing Boundary Dam Power Station particulate emissions well under Saskatchewan Environment's limits. In 2002, the project was expanded to include upgrades to the existing ESP on Unit #6. All six ESPs will be operational by the summer of 2003. At our other coal-fired facilities, flyash produced from burning lignite coal is stored in environmentally sound ash storage lagoons or dry storage facilities.

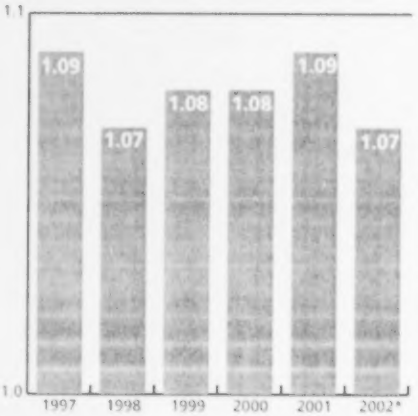
SaskPower is participating in University of North Dakota Environmental and Energy Research Center studies on capturing mercury from the combustion of lignite coal, as well as the development of pollution control technology for existing and future coal-based thermal electric generators. In cooperation with Saskatchewan Environment, the Corporation is conducting a program to more accurately determine SaskPower's mercury emissions. We are also investigating opportunities to offset atmospheric emissions through fluorescent tube recycling, as well as mercury switch capture from motor vehicle and residential thermostats.

Net Emission Per Unit of Fossil-based Generation (g/KW.h)



	1997	1998	1999	2000	2001	2002
SO_2	7.63	7.41	7.53	7.60	7.65	**7.56**
NO_x	2.67	2.62	2.64	2.64	2.67	**2.60**
Particulate Matter	10.07	10.78	8.48	7.76	5.41	**3.60**

Net Carbon Dioxide (CO_2) Emission Per Unit of Fossil-based Generation (kg/KW.h)



* Increased fossil-based generation efficiencies at QEPS and relatively more hydro generation have contributed to slightly lower emissions in 2002.

AT WORK IN OUR COMMUNITY

SaskPower Energy Solutions

The challenges presented by climate change are being met, in part, by our working partnership with large customers through Energy Performance Contracting, a component of SaskPower Energy Solutions. Energy Performance Contracting helps clients lower energy consumption and achieve important environmental benefits through energy efficient retrofits to existing heating, cooling, lighting and ventilation systems. In addition, Energy Performance Contracting lowers long-term operating costs and is also an effective way to implement facility improvements without capital expenditures, as energy savings are generally used to repay capital costs.

In 2002, the Saskatchewan Valley School Division No. 49 and SaskPower signed a contract to upgrade 18 schools and administrative facilities. In addition, the City of Regina and SaskPower reached an agreement in 2002 to upgrade seven facilities, while work continued to improve energy efficiencies at provincial government facilities through an existing Energy Performance Contracting agreement with the Saskatchewan Property Management Corporation. A contract to improve energy efficiency at eight school division facilities in the North West Catholic School Division in North Battleford was completed in 2002.

EnergyCheck

EnergyCheck, the province's interactive home energy audit and information service, is available on-line at saskpower.com. In 2002, more than 3,200 online audits were completed, far surpassing original estimates of 1,000 people utilizing the service annually. Since its inception, over 6,800 people have used the service. The program helps Saskatchewan people pinpoint where to conserve energy in their homes, allowing them to reduce greenhouse gas emissions associated with their energy usage while at the same time saving money on natural gas and power bills.

The home audit involves a series of questions about a customer's appliances, heating and cooling systems, and other electrical and natural gas uses. Results itemize the average annual costs of the major household energy systems and provide an estimate of potential savings that can be realized by updating appliances or undertaking renovations. Anyone is welcome to access EnergyCheck at saskpower.com.

Protecting Wildlife and Habitat

SaskPower is a proud partner in a number of initiatives designed to protect Saskatchewan's ecosystem and species at risk. The Corporation is a founding member of the Saskatchewan River Sturgeon Management Board. The Board's mission is to prevent further decline of the sturgeon population and coordinate recovery of the stock in the stretch of the Saskatchewan River between the E.B. Campbell Power Station and Manitoba Hydro's Grand Rapids Generating Station.

In 2002, work by the Board included the finalization of a 10-year management plan which continues a number of activities, including population monitoring through a mark and recapture study, habitat assessments, spawn taking and stocking, and harvest surveys.

The Corporation is also taking part in a coordinated effort to protect the piping plover, a bird species that has been listed as endangered by the federal government's Committee on the Status of Endangered Wildlife in Canada. SaskPower is participating in the Lake Diefenbaker Conservation Plan and is a member of the Prairie Piping Plover Recovery Team.

Lake Diefenbaker is one of the most important sites in North America for these migratory birds. In the spring, piping plovers nest on beaches; as water levels rise with the spring run-

off, these nests can be at risk of being flooded and the habitat for chicks can quickly disappear. Predators can also spot the birds more easily when the beach area is reduced due to the high water levels. The Lake Diefenbaker Conservation Plan will reduce the number of high water years, allow for the movement of nests in the event of imminent flooding, and reduce nest predation and the disturbance of beach habitat by humans and cattle.

SaskPower also continues work with the Prairie Conservation Action Plan to promote healthy native prairie within Saskatchewan. This group brings together native prairie stewards from across Saskatchewan, including provincial and federal government agencies, non-government organizations, as well as the Saskatchewan Stock Growers Association. In 2002, the previous action plan was updated with revised goals and new objectives.

In 1996, SaskPower became the first Diamond Legacy sponsor of Ducks Unlimited (DU) Canada with the signing of a 30-year agreement. Each year, we make a contribution of $115,000 to DU in Saskatchewan in support of habitat, education and research programs. This year, we're supporting the development of interpretive sites at DU projects near Prince Albert, Melfort and Humboldt. We're also continuing to support *Wetlands are Wonderlands*, an innovative, hands-on program that enables students and teachers to experience Saskatchewan's wetlands first-hand. More than 15,000 children have participated in the program over the past three years.

In partnership with DU, we are also working closely with the farming community to enhance the wildlife potential of the agricultural landscape. These initiatives — which include a program to promote rangeland stewardship in southern Saskatchewan, a study into the economics of winter wheat rotations and the development of a crop planning tool for winter wheat — are important components of our Diamond Legacy sponsorship. They help farmers find ways to improve their bottom line while reducing wind and water erosion and providing shelter for nesting birds and other wildlife.

Assisted by our sponsorship, in 2002 DU unveiled a newly developed planning tool that allows producers to better manage some of the risks associated with growing winter wheat. The new crop planning tool will give producers the data they need so that proper stubble fields will be available at the right time for fall seeding of winter wheat. The new tool is endorsed by Winter Cereals Canada, a producer group that promotes the benefits of fall-seeded crops.

Environmental Education

Enhanced environmental education is being brought to classrooms, thanks in part to SaskPower's financial support of Climate Change Saskatchewan. Led by the Saskatchewan Instructional Development and Research Unit at the University of Regina, the program focuses primarily on conducting teacher education workshops and developing and adapting instructional materials on climate change for use in elementary and high schools. It also provides balanced information on climate change issues, and increases the availability of information relevant to Saskatchewan residents.

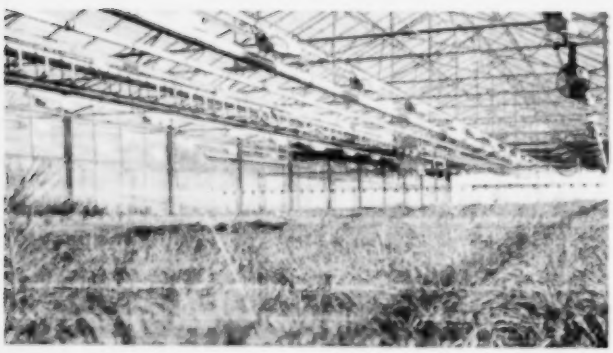
In 2002, SaskPower's sponsorship of environmental education initiatives also continued through an ongoing partnership with the Saskatchewan Environmental Society to deliver the *Destination Conservation* program. Workbooks were produced for grade five students in the Saskatoon school system in support of the provincial curriculum guide with respect to energy management and environmental issues. *Destination Conservation* was also delivered to students in the Saskatchewan Valley School Division No. 49 and the North West Catholic School Division in North Battleford, as part of SaskPower's Energy

Performance Contracting agreements with these two institutions.

Through our ongoing partnership with Nature Saskatchewan, the PlantQuest and BirdQuest educational programs continue to promote environmental awareness among the youth of the province. These programs offer young people the opportunity to learn more about plant and bird species, and their importance to the environment. In our promotion of environmental education, we also continue to support the Harmony Foundation – an internationally acclaimed organization that promotes global awareness and understanding of environmental issues. Since 1995, SaskPower has sponsored annually two Saskatchewan teachers to participate in Harmony's summer educational program.

Solar Energy

SaskPower also supports a public education program on solar energy that includes the installation of solar panels on the roof of the Saskatchewan Science Centre in Regina. The interactive exhibit accompanying the panels demonstrates how much energy is being produced by the solar panels at any given time, and indicates how much energy is required to operate typical electrical appliances and devices. The exhibit offers an explanation of how solar energy works, presenting its benefits and limitations. The model of a house illustrates how electrical devices are affected by the presence of sun and cloud on solar panels.



SaskPower Shand Greenhouse

The SaskPower Shand Greenhouse continues to play an important role in helping to address the challenge of climate change. It draws waste heat from the nearby Shand Power Station to provide a year-round growing environment for tree, shrub and native plant species. Since 1991, we've distributed over three million tree and shrub seedlings, many free of charge, to not-for-profit agencies, service clubs, conservation agencies and individual land owners interested in preserving and enhancing Saskatchewan's natural landscape. Once the seedlings are planted, they absorb carbon dioxide from the atmosphere, helping to reduce the effects of carbon dioxide emissions from coal-fired power generating stations.

Greenhouse staff piloted an interactive *Energy & Our Environment* presentation in grade five and six classrooms in 2002. Building on the success of the existing *Energy & Our Environment* workbook, the presentation augments the standard curriculum on electrical production by discussing issues around climate change.

In 2002, the Shand Greenhouse presented its first-ever *Energy & Our Environment* poster contest, which challenges young people to develop posters with ideas on how to take action on climate change. Grade five and six students in Saskatchewan responded positively to the contest, with more than 1,000 poster entries from over 60 schools across the province. In addition to the top prize of a bicycle for each of the four winning students, each winner's school received a credit for the purchase of larger trees from a local nursery to be planted on school grounds. The four schools also received climate change books and reference materials for the school library.

DILIGENCE IN OUR DAILY ACTIVITIES

Public Involvement

SaskPower is committed to consultation with a broad range of stakeholders concerning new projects, facilities, operations and policies. Public involvement presents an opportunity for us to work closely with the community to achieve the best possible planning and implementation results. It is a systematic process which ensures that regulators, local officials, planners, customers, landowners, contractors, suppliers and other interested groups and individuals are advised of activities and developments early in project planning stages. Through a series of opportunities for mutual education and exchange of ideas, project planners and communities work toward improved project decisions.

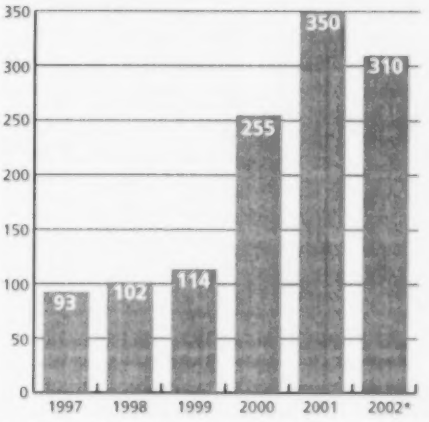
Our public involvement programs typically include early contact with local officials, distribution of detailed project information, open house sessions, meetings with individuals and interest groups, media releases and advertisements, and direct correspondence and discussion by mail, electronic mail and telephone. Results of public participation programs are frequently included in project application and approval processes to Saskatchewan Environment.

One major challenge for the utility industry is the routing of transmission lines. SaskPower is continuing to adopt the majority of the recommendations contained in the report of the Transmission Line Routing Review Panel, which was released in February 2001. As part of our corporate response, in 2002 SaskPower published a 10-year Transmission Development Plan, outlining anticipated transmission and load growth developments for the period 2002 to 2011. This is the first time SaskPower has prepared and circulated such a detailed look into the future of our transmission system. The plan will be updated annually and is available on-line at saskpower.com. We are also initiating an enhanced public participation process, with a community-based approach to social and economic evaluation of transmission line corridors. The remainder of the recommendations are to be implemented as soon as practical, with some requiring consultation with Saskatchewan Environment prior to implementation.

Screenings, Assessments and Project Approvals

As part of SaskPower's ongoing commitment to sustainable development and compliance with provincial and federal assessment/legisla-

Project Referrals



* A total of 310 projects were referred to Environmental Programs in 2002 for detailed review, with the majority of these being distribution projects.

Project Referrals and Field Assessments (2002)

	Referrals	Assessments
Generation	2	3
Transmission	9	13
Distribution	299	45
Total	310	61

tion, we continually conduct internal screening of all generation, transmission and distribution projects. If there is a possibility that environmentally sensitive lands will be affected by our development, the project plans are forwarded to SaskPower Environmental Programs where the project is assessed in detail to determine if legal approvals, permits, field assessments or other actions are required.

On the generation side, environmental approvals were obtained for the Cypress Wind Power Facility. Because of their location on high points of land, wind power projects have a high potential for conflict with archaeological sites. As a result, extensive archaeological impact assessment and mitigation studies were conducted for this project in 2002.

Four large archaeological sites were found in the vicinity of the tower sites. Shovel tests showed that there were no intact levels of the sites below the plow zone, meaning archaeological excavation was not necessary. Instead, artifacts — including arrowheads, hide scrapers, and rock from cooking pits — were collected from the areas that would be disturbed by construction of the wind tower location and access roads. The artifacts are undergoing analysis and will be archived with the Province of Saskatchewan, as required by the Heritage Resource Investigation Permit.

In 2003, SaskPower will be commissioning a study of the potential impacts that the wind turbines could have on migratory birds, in cooperation with Saskatchewan Environment and the Canadian Wildlife Service.

Transmission Lines

During 2002, extensive effort was also devoted to environmental issues relating to major transmission lines. Environmental approvals were achieved for a transmission line rebuild north of Prince Albert, a line rebuild near Saskatoon and a new line for servicing an oriented strand board plant near Meadow Lake.

North of Prince Albert, along the route of the Prince Albert to Timber Cove (PA8) Transmission Line Reinforcement Project, sensitive habitats were identified for environmental protection. As a result, environmental monitors worked closely with construction personnel to protect the areas during construction. In addition, a four-year study was initiated to assess potential cowbird parasitism — cowbirds laying eggs in the nests of other songbirds — after completion of the line.

A short transmission line near Macklin, some of which was constructed through sensitive sandhill terrain, had an environmental protection plan implemented. A transmission line relocation near the Shand Power Station was inspected for potential impact to heritage sites and rare plant species.

In addition, reclamation activities for major transmission lines continued. Revegetation success along the PA8 line built in the Northern Provincial Forest north of Christopher Lake in 2001 was monitored. Regrowth of shrubs and flowering plants was very successful, while monitoring of grass regrowth along the access trail will continue into 2003. Reclamation progress along a new transmission line north of Green Lake was also assessed. Follow-up reclamation of a short transmission line through Prairie Farm Rehabilitation Administration pasture near Halbrite was also completed.

Vegetation Management

The maintenance of vegetation on power line rights-of-way requires special attention. When left to grow too close to power lines, tall trees pose a potential threat to electrical system reliability and safety. Noxious weeds can also pose a significant problem throughout our operations, such as at generating stations and transmission and distribution substations.

To control the growth of undesirable vegetation, SaskPower's integrated vegetation management program includes the use of mechanical methods like brush mowing and the selective use of federally-registered, low persistent herbicides for problem trees and noxious weeds.

We continue to work with Saskatchewan Environment to implement an environmental protection plan for vegetation management on northern transmission line rights-of-way. This plan requires a 30-metre buffer between water bodies and the application of herbicide on transmission line rights-of-way, and also gives special consideration to sensitive areas in Saskatchewan's northern boreal forest, such as the spawning grounds of certain fish species.

Electric and Magnetic Fields

Since the early 1970s, the scientific community worldwide has been studying the potential health effects of electric and magnetic fields (EMF). To date the scientific community has not established a causal link between adverse health effects and EMF. SaskPower recognizes the concerns of our customers and employees regarding possible EMF-related biological and health effects. As a member of the Canadian Electricity Association, we actively monitor worldwide developments in scientific research, regulations and policy. We communicate balanced, accurate and timely information to all employees, customers and regulatory agencies regarding concerns of health effects, computer monitor interference and property values. Upon request, our regional staff will take EMF measurements in both the home and workplace.

Zero G

Zero G stands for Zero Garbage, a SaskPower waste management program initiated in 1993 and now operating at SaskPower offices, power plants, switching stations and transmission facilities throughout the province. The basis of the program includes the five R's of waste management: rethink, reduce, reuse, recycle and recover.

In 2002, SaskPower employees recycled 59,911 kilograms of paper in SaskPower facilities in Regina and surrounding areas. We've implemented several new recycling programs, including aerosol cans, oily rags, antifreeze, milk cartons and organic material. We also have vermicomposters at Boundary Dam Power Station and one of our Regina offices to help divert organic waste, such as food, from local landfills. Our recycling efforts also extend to the efficient use of other materials. In the construction and rebuilding of transmission lines, for example, we tender scrap metals for reuse and recycling.

Each year, summer students conduct audits of waste streams at approximately 60 SaskPower facilities so that we can track our progress. These audits, such as the one carried out at Head Office during Environment Week 2002 by St. Catherine elementary school students in Regina, measure the volume and types of materials diverted from landfills, providing an accurate gauge of waste reduction. By recording and comparing the figures to previous years, the students confirm that SaskPower employees are moving toward the goal of zero garbage.

SaskPower also partners with outside organizations to share Zero G practices and lessons. In cooperation with the City of Regina and the Saskatchewan Roughriders, the Green the Park Program is promoting the recycling of plastic cups at Taylor Field. Meanwhile, in 2002 we participated in the award-winning *Think Food* program with the Regina and District Food Bank. SaskPower was the largest single contributor to the Canada-wide project, with 1,150 laser and inkjet cartridges being recycled, raising $4,000 for Saskatchewan food banks.

Flyash

Flyash — a fine ash that is a byproduct of burning finely pulverized coal in thermal power stations — is extracted from exhaust gases by electrostatic precipitators (ESPs). Some of the flyash collected is used for ready mix concrete, mine backfill, oil well cementing, road base stabilization and oil well site environmental applications.

In 2002, SaskPower International continued selling flyash to a Saskatchewan-based company involved in a provincial highway improvement project that involves blending flyash with other materials to strengthen thin membrane surfaced roads across the province. There are approximately 7,500 kilometres of these secondary highways in Saskatchewan.

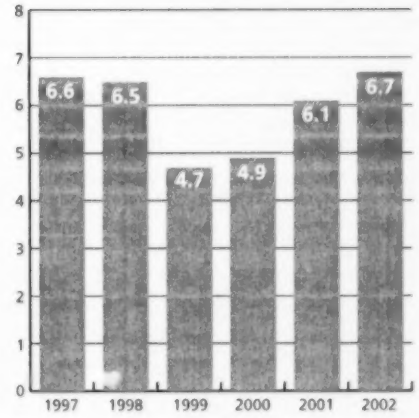
Insulating Oil

Throughout our electrical grid, there are several kinds of electrical equipment that use oil as an insulator and coolant. For example, the maintenance of transformers often involves removing and cleaning the oil, or replacing it with new oil. Most of this insulating oil is filtered or reprocessed so that it can be returned to serviceable electrical equipment. Reusing insulating oil reduces the purchase and consumption of new oil required for insulation, and limits the volume of oil disposed of as waste. A smaller portion of this oil is recycled for uses other than in electrical equipment.

PCBs

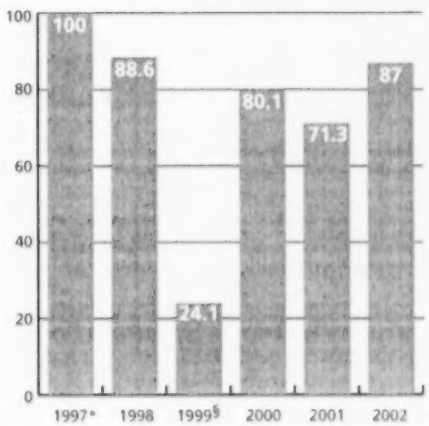
Polychlorinated biphenyls (PCBs) are a group of organic compounds that were used as cooling and insulating fluids in various types of electrical equipment. Due to the potential adverse effects if released into the environment, PCBs require special handling, storage and disposal measures. Once removed from service, contaminated equipment is sent for approved disposal

Flyash Use - %



- Measurement of sales of this coal-fired generation by-product. Changing market demand has resulted in fluctuating sales.

Insulating Oil Reuse - %



- Measurement of the amount of insulating oil reused, resulting in the reduced purchase and consumption of new oil.

* In 1997, the total existing inventory of insulating oil was processed or cleaned by third party contractors.

§ In 1999, a significant portion of the existing inventory of insulating oil was sent to Swan Hills, Alberta, for incineration.

Reportable Spills

	1997	1998	1999	2000	2001	2002
Oil spills	6	10	6	9	4	**10**
PCB contaminated oil spills (≥5ppm)	8	6	9	7	5	**7**
Other spills	2	7	4	7	3	**5**
Total spills	16	23	19	23	12	**22**

as PCB waste. Other generated PCB wastes are associated with spills and the handling of PCB contaminated materials. SaskPower tracks waste contaminated with more than 5 ppm PCBs. We use our regional storage sites to consolidate PCB waste prior to disposal.

Spills

Current legislation requires that spills of hazardous substances be reported to Saskatchewan Environment. Legislation defines a spill by type, volume and location. SaskPower had 22 spills in 2002. The impact of all spills in 2002 was either negligible, mitigated in an acceptable fashion, or will be mitigated in the future upon decommissioning.

Site Assessments

SaskPower conducts site assessments prior to the sale, purchase or lease of property, or as a result of investigations indicating the potential for contamination. If necessary, we initiate site remediation after the assessment has been completed.

Blaine Lake District Office

A site assessment was conducted on the property following the termination of the lease in late 2001. The assessment identified concentrations of petroleum hydrocarbons in the soil that were above acceptable criteria. In accordance with the clean-up plan that was approved by Saskatchewan Environment, the petroleum hydrocarbon contaminated soils were excavated and placed at the City of Saskatoon landfill for treatment.

Carrot River District Service Building

The site assessment, conducted prior to the release of the property, identified elevated concentrations of petroleum hydrocarbons, pentachlorophenol (PCP), and creosote in the soil. A clean-up plan was prepared and submitted to Saskatchewan Environment for approval. In accordance with the approved plan, the contaminated soils were excavated and placed in a designated location at the Nipawin Town landfill for landfarming.

Prince Albert Substation # 4

Prior to the release of the property, a site assessment was conducted, identifying petroleum hydrocarbons and zinc in the surface soils that were above acceptable levels. Following approval of the clean-up plan by Saskatchewan Environment, the petroleum hydrocarbon contaminated soils were excavated and placed at the City of Prince Albert landfill for landfarming. The zinc contaminated soil was combined with the petroleum hydrocarbon contaminated soil prior to transport to the Prince Albert landfill.

Regina Tuxedo Park Substation

The substation was decommissioned in the early 1980s, after which the building and the yard were used for the storage of electrical equipment. A site assessment conducted in 2001 identified petroleum hydrocarbons and PCBs in the soil at concentrations above acceptable levels. Approval to clean up the contaminated soil was received from Saskatchewan Environment in 2002. The contaminated soil was removed from the site and shipped to a hazardous waste disposal facility.

Shellbrook District Warehouse

The district warehouse site in Shellbrook was once the location of a diesel-fuelled power station. Site assessments in previous years indicated that concentrations of total phenols and total concentrations of certain metals in the groundwater exceeded guidelines. Testing of the groundwater in 2002 focussed on specific phenol species and on dissolved concentrations of these metals. In both cases, concentrations were within guidelines for protection of human health applicable to potable water. However, concentrations of certain phenols in some of the samples exceeded aesthetic objectives applicable to potable water, meaning that they could impart a taste or odour to the water. Further monitoring of the groundwater for specific phenols is planned for 2003.

Yorkton Service Centre

The Yorkton Service Centre building and property were the sites of a diesel-fuelled power station. Previous site assessments identified concentrations of petroleum hydrocarbons exceeding criteria in the subsurface soil and shallow groundwater on the property, as well as on adjacent properties to the west and north. Concentrations of certain metals exceeding guidelines were found in the soil and groundwater on the property. An evaluation in 2002 recommended that liquid phase hydrocarbons present on the groundwater table should be removed in order to minimize the risks. Plans to proceed are being reviewed by the affected landowners.

Other Assessments

Ten other properties were assessed prior to being released for sale or returned to the lessor. These included substations, warehouses and offices. Soil samples collected were analyzed for PCBs, hydrocarbons, metals and, where necessary, PCP and creosote. Three sites were identified that require remediation before the properties can be released, with required work scheduled for 2003. In addition, 17 properties were assessed prior to finalizing the lease or purchase agreements and three other assessments were completed related to new construction on existing SaskPower properties.

Canadian Electricity Association (CEA) Environmental Commitment Responsibility (ECR) Program Indicators

	1997		1998		1999		2000		2001		2002	
	SaskPower	CEA (ECR)	SaskPower	CEA (ECR)	SaskPower	CEA (ECR)	SaskPower	CEA (ECR)	SaskPower	CEA (ECR)	SaskPower	CEA [1] (ECR)
1. EFFICIENCIES -%												
Internal energy efficiency												
Generation	94.0	97.4	93.9	97.0	93.9	97.3	93.6	97.4	93.3	97.5	93.6	N/A
Transmission	95.2	95.4	94.9	95.4	95.1	95.7	95.0	95.8	95.4	96.0	95.3	N/A
Distribution	94.8	94.8	94.4	94.6	94.6	95.1	94.4	95.4	95.0	95.8	94.9	N/A
Energy conversion efficiency for fossil-based generation												
	30.3	33.1	30.2	33.3	30.1	33.2	31.3	33.4	31.5	33.5	30.4	N/A
Flyash use												
	6.6	17.1	6.5	21.0	4.7	20.6	4.9	21.5	6.1	24.8	6.7	N/A
Insulating oil reuse												
	100.0	77.4	88.6	72.2	24.1	69.6	80.6	77.2	71.3	77.7	87.0	N/A
2. REDUCTION OF ENVIRONMENTAL IMPACTS												
Net emission of carbon dioxide per unit of fossil-based generation (kg/KW.h)												
Carbon dioxide	1.09	.81	1.07	.85	1.08	.82	1.08	.73	1.09	.83	1.07	N/A
Net emission of acid gas per unit of fossil-based generation (g/KW.h)												
Sulphur dioxide	7.63	5.22	7.41	5.14	7.53	5.06	7.60	4.86	7.65	4.77	7.56	N/A
Nitrogen oxides	2.67	2.11	2.62	2.02	2.64	1.98	2.64	1.82	2.67	1.73	2.60	N/A
Reportable spills [2]												
	16	950	23	4,964	19	1,057	23	904	12	1,167	22	N/A
Priority spills												
	2	43	2	81	1	94	3	74	0	87	2	N/A
PCB in storage (tonnes) [3]												
High level	0	3,813	1	707	1	580	4	116	9	104	2	N/A
Low level	8	2,611	38	1,896	51	1,033	31	863	15	849	31	N/A
PCB sent for destruction (tonnes)												
High level	1	2,588	3	2,974	2	535	3	926	0	510	12	N/A

- Internal efficiencies and emissions for SaskPower are comparable to the averages reported through the ECR Program. Slightly lower efficiencies and higher emissions for generation – including energy conversion efficiency for fossil-based generation – are due in part to the operation of older yet reliable and cost-effective generation facilities.
- The percentages reported for flyash use are dependent largely on the net generation of fossil-based utilities participating in the ECR Program and their proximity to North American markets for this by-product of coal-fired generation.
- The percentages reported by SaskPower for insulating oil reuse are comparable to the average reported by CEA member utilities; however, in 1999 a significant portion of insulating oil was sent to Swan Hills, Alberta for incineration.
- The data reported through the ECR Program for reportable and priority spills, as well as PCBs in storage and sent for destruction, are representative of the overall totals of all Canadian utilities (including SaskPower) that have been participating in this industry-wide program.

1) The CEA ECR Program reports industry-wide on efficiencies and environmental impacts. CEA ECR Program data for 2002 not available at time of printing.

2) In compliance with the CEA ECR Program reporting guidelines, reportable spills are considered priority spills if the substance is a petroleum product or PCB-contaminated, and any one of the following: a spill with a volume greater than 500 litres; a spilled substance that enters a waterbody; or a spill that attracts local, provincial or national media attention. In 2002, two priority spills reported by SaskPower to the ECR Program involved a petroleum product over 500 litres.

3) According to the ECR Program guidelines, "high level" PCB material is defined as any material (including equipment) with a PCB concentration greater than 1 per cent (10,000 ppm); "low level" PCB material is defined as any material (including equipment) with a PCB concentration of greater than 50 ppm but less than 10,000 ppm.

Glossary

Carbon dioxide equivalent (CO_2e) A unit of measurement used to calculate the impact of the various gases involved in global warming.

Carbon dioxide (CO_2) offsets Initiatives designed to reduce net CO_2 from the burning of fossil fuels. Offsets are carried out independently of the source emissions.

Cogeneration The simultaneous production of electricity and steam from a single fuel source.

Electric fields Invisible fields of force created by electric voltage, measured in volts/metre (V/m).

Electrostatic precipitator (ESP) A device for removing particles of ash, dust, smoke and other elements from air and gas flows.

Flyash Fine residue resulting from the combustion of pulverized coal used in many coal-fired generating stations.

Fossil-based generation Includes coal and natural gas-fired generation of electricity.

Gigawatt Hour (GW.h) A unit of bulk energy; 1,000,000 kilowatt hours.

Greenhouse gases (GHG) Naturally-occurring gases such as carbon dioxide (CO_2), methane (CH_4) and nitrous oxide (N_2O) that trap heat in the earth's lower atmosphere.

ISO 14001 A standard that defines the elements of a sound environmental management system. The ISO 14000 series is a family of environmental management standards developed by the International Organization for Standardization (ISO).

Kilovolt (kV) A unit of pressure, or push, of an electric current; 1,000 volts.

Kilowatt Hour (kW.h) A unit of bulk energy; 1,000 watt hours. The measurement is generally used for billing residential customers.

Landfarming A treatment process that uses micro-organisms to break down or degrade organic chemical contaminants in soil. The soil is tilled periodically to facilitate the degradation process.

Magnetic fields Invisible fields of force created by electric current, measured in microtesla (uT) or milligauss (mG).

Megawatt (MW) A unit of bulk power; 1,000 kilowatts. The output of a commercial generator or power station is usually expressed in megawatts.

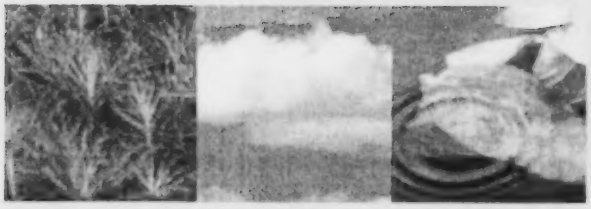
Particulate Matter Emissions of ash particles from the burning of fossil fuels.

Polychlorinated biphenyls (PCBs) A group of organic compounds that were once used as cooling and insulating fluids in various types of electrical equipment, including transformers and capacitors.

Site remediation The elimination or minimization of environmental contamination or degradation that has already occurred.

Solar panel A device that converts sunlight to electricity for use as a power source.

Vermicomposting Use of a special kind of earthworm to convert organic matter to compost.



To learn more about SaskPower's environmental programs and initiatives, please visit us on-line at saskpower.com or contact SaskPower Environmental Programs:

phone: 1-800-667-4749, toll-free in Saskatchewan

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